

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
24 December 2003 (24.12.2003)

PCT

(10) International Publication Number
WO 03/107340 A1

(51) International Patent Classification⁷: **G11B 11/105**

(21) International Application Number: **PCT/IB03/02479**

(22) International Filing Date: **5 June 2003 (05.06.2003)**

(25) Filing Language: **English**

(26) Publication Language: **English**

(30) Priority Data:
02077375.0 17 June 2002 (17.06.2002) EP

(71) Applicant (*for all designated States except US*): **KONINKLIJKE PHILIPS ELECTRONICS N.V. [NL/NL]; Groenewoudseweg 1, NL-5621 BA Eindhoven (NL).**

(72) Inventors; and

(75) Inventors/Applicants (*for US only*): **IMMINK, Albert, H., J. [NL/NL]; c/o Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL). VERSCHUREN, Coen, A. [NL/NL]; c/o Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL). BLUM, Martinus, W. [NL/NL]; c/o Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL).**

(74) Agent: **DEGUELLE, Wilhelmus, H., G.; Philips Intellectual Property & Standards, Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL).**

(81) Designated States (*national*): **AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.**

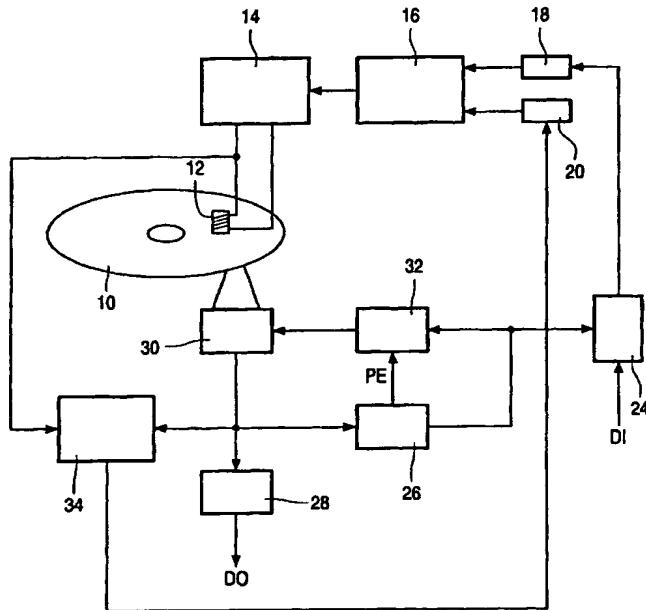
(84) Designated States (*regional*): **ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).**

Published:

— *with international search report*

[Continued on next page]

(54) Title: **DYNAMIC COPY WINDOW CONTROL FOR DOMAIN EXPANSION READING**



WO 03/107340 A1

(57) Abstract: Method and apparatus for reading a magneto-optical domain expansion recording medium (10), wherein the size of a spatial copy window of a domain copying process is controlled by varying a predetermined reading parameter in response to a control information derived from a readout pulse. A predetermined additional pattern of change is applied to said predetermined parameter and the control information is then derived from a deviation of a clock signal. The size of the copy window can thus be controlled dynamically to obtain a robust and reliable readout process.



- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

INTERNATIONAL SEARCH REPORT

Inte Application No
PCT/103/02479

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 G11B11/105

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 G11B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, INSPEC

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6 058 077 A (MIYAKO YASUYUKI) 2 May 2000 (2000-05-02) the whole document	1,3,8, 14,21 2,13,15, 22
Y	EP 0 913 818 A (SANYO ELECTRIC CO ;HITACHI MAXELL (JP)) 6 May 1999 (1999-05-06) the whole document	2,13,15, 22 1,3-5,7, 14, 16-18,20
A	EP 0 984 445 A (SANYO ELECTRIC CO) 8 March 2000 (2000-03-08) the whole document	1,14,27
	---	-/-

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

* Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the International filing date
- *L* document which may throw doubts on priority, claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the International filing date but later than the priority date claimed

- *T* later document published after the International filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *&* document member of the same patent family

Date of the actual completion of the International search

12 November 2003

Date of mailing of the International search report

24/11/2003

Name and mailing address of the ISA
European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax (+31-70) 340-3016

Authorized officer

Nanos, A

INTERNATIONAL SEARCH REPORT

Intern Application No
PCT/IB/02479

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	BLOM P W M ET AL: "SPATIAL RESOLUTION OF DOMAIN COPYING IN A MAGNETIC DOMAIN EXPANSION READOUT DISK" IEEE TRANSACTIONS ON MAGNETICS, IEEE INC. NEW YORK, US, vol. 37, no. 5, PART 2, September 2001 (2001-09), pages 3860-3864, XP001083214 ISSN: 0018-9464 the whole document -----	1,14,27

INTERNATIONAL SEARCH REPORT

Internat'l Application No.
PCT/IB 02479

Patent document cited in search report		Publication date		Patent family member(s)		Publication date
US 6058077	A	02-05-2000	JP	10092037 A		10-04-1998
EP 0913818	A	06-05-1999	AU	3459997 A		09-02-1998
			EP	0913818 A1		06-05-1999
			US	6424601 B1		23-07-2002
			WO	9802877 A1		22-01-1998
			KR	2000022390 A		25-04-2000
EP 0984445	A	08-03-2000	AU	1983099 A		09-08-1999
			EP	0984445 A1		08-03-2000
			US	6388955 B1		14-05-2002
			CN	1262768 T		09-08-2000
			WO	9938161 A1		29-07-1999
			US	2002027835 A1		07-03-2002
			AU	1178700 A		05-06-2000
			CN	1332883 T		23-01-2002
			EP	1130589 A1		05-09-2001
			WO	0030088 A1		25-05-2000